CITY OF GOODYEAR CITY COUNCIL ACTION FORM

SUBJECT: Council award a contract in the amount of \$222,600.00 to Skyline Builders & Restoration, Inc. for refurbishment of Storage Tank #11

STAFF PRESENTER: Ken Martin COMPANY Skyline Builders & Restoration, Inc.

CONTACT: Art Ruff

RECOMMENDATION:

Council award a contract in the amount of \$222,600.00 to Skyline Builders & Restoration, Inc. to refurbish the interior steel coating of the water storage tank located at Well #11.

COMMUNITY BENEFIT:

The current condition of the water storage tank dictates refurbishment, including grinding, painting and sealing the entire interior. Failure to refurbish the storage tank, could result in premature structure failure of the tank, as well as reduced water quality from water stored and in the near future, blended at the site. Refurbishment of the two million-gallon water storage tank will enhance the water system's reliability, prolong the life of the steel structure, and curb the expenditure of capital dollars for replacement of the structure. improvements must be completed before April 2004 to bring the tank back into the distribution system prior to increased warm weather water usage throughout the City.

DISCUSSION:

The potable water storage tank located at 1600 S. Bullard Avenue, (the site of Well 11) is a 158 foot diameter, 16 foot high steel structure with a nominal capacity of just over 2.0 million gallons. The reservoir was originally constructed in 1987. The tank last underwent maintenance cleaning and inspection in February 2001. During this inspection and cleaning it was noted that the tank roof panels, joists, and attaching hardware all showed signs of light surface corrosion at the seams. The tank walls showed heavy staining however the staining is most likely due to bleeding from the roof structure and the age of the tank. The floor plates showed signs of blistering and surface corrosion. While the floor looks to be in fair condition, the blistering is an indicator of paint coating failure that may be hiding additional damage to the tank floor structure. The exact condition of the structure will be revealed once the paint coating is sand blasted and removed. An allowance to fix these areas is included in the contract as a bid item to cover up to 200 4-inch square patch plates.

The steel coating of this reservoir is entering its 17th year of service. The normal coating life of protective steel coatings is usually in the magnitude of 12-15 years. The coating life may be extended through the use of cathodic protection, which uses electric current operating through sacrificial anodes to attract cathodic conductivity. By sacrificing these anodes the coating is protected from cationic attack, which is the most common cause of coating failure. The improvement work currently scheduled for the Well 11 storage tank includes the installation of a cathodic protection system to prolong the life of the tank coating.

Request for bids for refurbishment of the storage tank refurbishment and protective coating system were solicited and five (5) bids were received on January 16, 2004. Skyline Builders & Restoration, Inc. submitted the lowest responsible bid in the amount of \$222.600.00. This bid amount includes up to 200 steel plates at a cost of \$149.00 each, which may not be fully utilized.

Contractor Bids:

Arizona Coating Applicators	\$246,246.18
State Painting, Inc.	\$242,100.00
Riley Industrial Services	\$233,780.00
Robison-Prezioso, Inc.	\$260,100.00
Skyline Builders & Restoration, Inc.	

Consultant Estimate:

Texacali Consulting & Construction Services provided a cost estimate for this project on December 4th, 2003, of \$220,000.00.

Water Management Impact

Completing the refurbishment of the two million-gallon water storage tank at Well #11 will prolong the life of the steel structure. Additionally, expenditure of capital dollars for replacement of the structure out of the budget will be realized. Furthermore, potential potable water contamination may be avoided, which would cause the storage tank to be removed from the distribution system for an extended period of time.

FISCAL IMPACT:

This project is consistent with the Water Strategy Implementation project as approved by Council on December 8, 2003. Funds to complete the refurbishment of the water storage tank and protective coating in the amount of \$222,600.00 are available from the FY 03-04 Capital Improvement Project – Well and Water Storage, Project #WA0301 up to \$220,000.00. The additional \$2,600.00 to be transferred from the Water Division's FY 03/04 Well and Tank Maintenance operating fund.

Grant I. Anderson – Deputy City Manager

Jim Oeser – City Attorney

Larry Price – Finance Director

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Stephen S. Cleveland - City Manager

PREPARED BY:

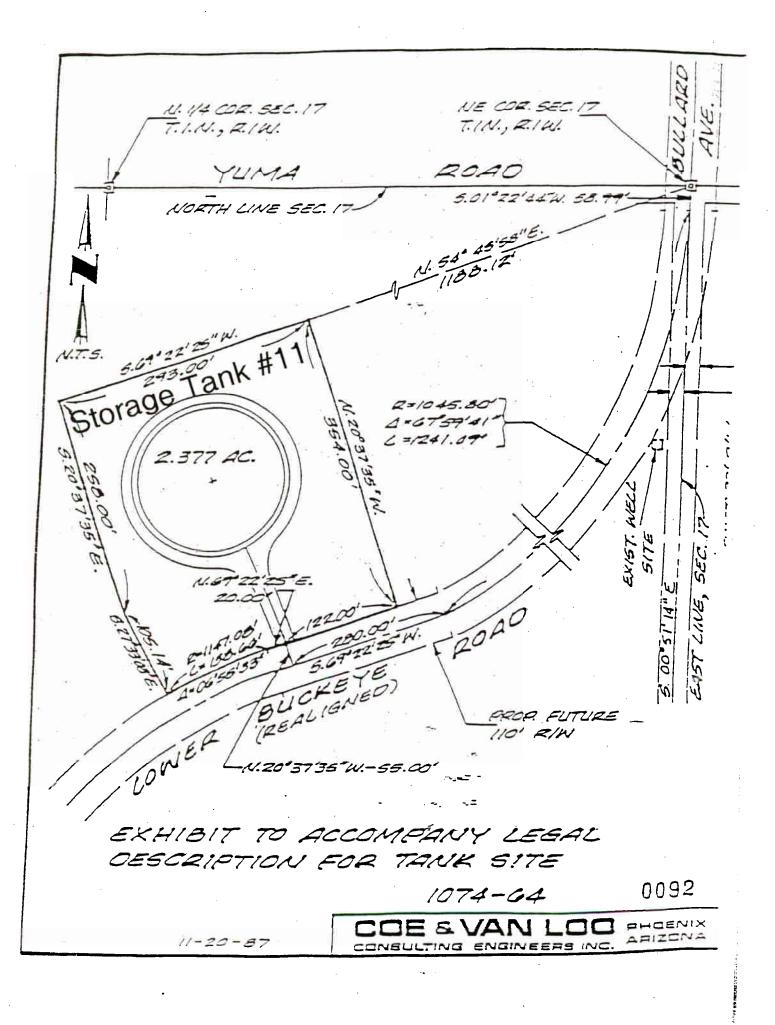
Martie Polk, Staff Assistant

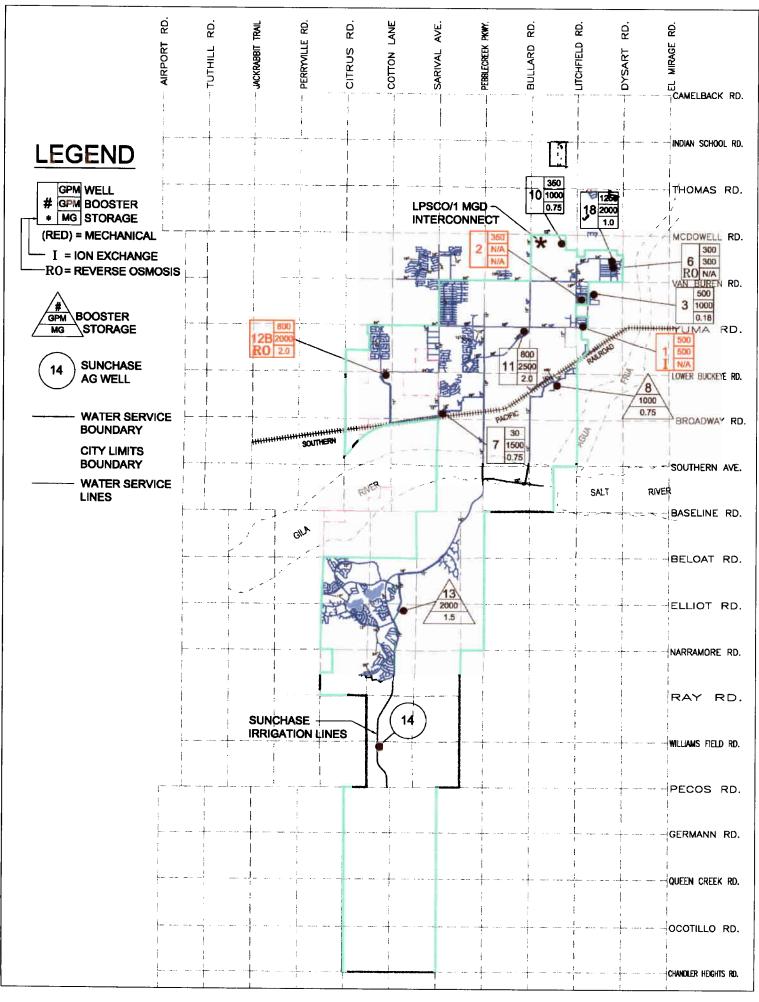
Ken Martin,

Interim Water Management Director











CITY OF GOODYEAR, ARIZONA

PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS

STORAGE TANK # 11 REFURBISHMENT 2004-010

1600 S. Bullard Avenue, Goodyear, AZ

JANUARY 2004

WATER MANAGEMENT DEPARTMENT 120 E. WESTERN AVENUE GOODYEAR, ARIZONA 85338 623-932-1637

PROJECT SPECIFICATIONS AND CONTRACT DOCUMENTS

STORAGE TANK #11 REFURBISHMENT

2004-010

JANUARY 2004

MAYOR James Cavanaugh

VICE MAYOR

Richard Sousa

COUNCIL MEMBERS

Robert Antoniak
Frank Cavalier
Sue Linney
Ken Porter
Fred Scott

CITY MANAGER

Stephen S. Cleveland

CITY CLERK

Dee Cockrum

CITY ATTORNEY

James Oeser

WATER MANAGEMENT INTERIM DIRECTOR

Ken Martin



18778
DAVID J.
RAMIREZ J. Ramis

CITY OF GOODYEAR
WATER MANAGEMENT DEPARTMENT
120 E. Western Avenue
Goodyear, Arizona 85338
623-932-1637

STORAGE TANK #11 REFURBISHMENT 2004-010

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CITY OF GOODYEAR NOTICE TO CONTRACTORS ADVERTISEMENT FOR BIDS

Sealed bids shall be <u>either mailed</u> or <u>hand-delivered</u> to the City of Goodyear, City Clerk's Office, 190 North Litchfield Road, Goodyear, Arizona, 85338, for furnishing all plant, material, equipment and labor, and to complete construction of: **PROJECT NO. 2004-010** – **STORAGE TANK #11 REFURBISHMENT** for the removal and re-application of specified protective coating for the interior of a 2.0 million gallon potable water reservoir.

Bids must be received by the City Clerk of the City of Goodyear no later than 3:30PM on **January 14**, 2004. Any bid received after that time will not be opened or considered and will be returned to the bidder. The bids will be publicly opened and read aloud in the City of Goodyear City Hall Building Main Conference Room #117, 190 North Litchfield Road, Goodyear, Arizona. The responsible bidder submitting the lowest bid, inclusive of bid alternates, if any, selected at the City's discretion, will be recommended to City Council for award.

Specifications and contract documents may be examined, and copies may be obtained at City of Goodyear Public Works Department, 120 East Western Avenue, Goodyear, Arizona. A non-refundable charge of \$20.00 shall be paid for each set of plans and specifications issued from this office. Any questions regarding this project should be addressed to Ruben Veloz, Water Division Supervisor, at 623-932-1637.

Each bid shall be in accordance with the plans, specifications and contract documents, and shall be set forth and submitted on the BID DOCUMENTS included with the project specifications book. The BID DOCUMENTS may be removed from the project specifications book and submitted independently of such book. Each bid shall be accompanied by a proposal guarantee, in the form of a certified or cashier's check or bid bond for ten percent (10%) of the amount of bid, made payable to the order of the City of Goodyear, Arizona, to insure that the successful bidder will enter into the contract, if awarded to him, and submit the required Certificate of Insurance, Payment Bond and Performance Bond. All proposal guarantees, except those of the three lowest qualified bidders, will be returned following the opening and checking of proposals. The proposal guarantees of the three lowest qualified bidders will be returned after the contract documents have been executed by the successful bidder. The proposal guarantee shall be declared forfeited as liquidated damages if the successful bidder refuses to enter into said contract or submit the Certificate of Insurance, Payment Bond and Performance Bond after being requested to do so by the City of Goodyear, Arizona.

The City of Goodyear reserves the right to reject any or all bids or waive any informality in a bid. No bidder may withdraw his bid for a period of $\underline{\text{fifty}}$ (50) days after opening and reading of the bids.

The City of Goodyear is an equal opportunity employer and minority business enterprises and women's business enterprises are encouraged to submit bids.

CITY OF GOODYEAR, ARIZONA By: Stephen Cleveland, City Manager

Published: December 31, 2004

January 7, 2004 West Valley View

INFORMATION FOR BIDDERS

- 1. ELIGIBILITY OF CONTRACTORS: When calling for bids for contracts for public work to be performed on behalf of the State or any political subdivision thereof, which will be paid for from public funds, no bid shall be considered for performance of a contract, including construction work which is not submitted by a bidder duly licensed as a contractor in this State.
- 2. PROPOSAL: Bids to receive consideration shall be made in accordance with the following instructions:
- (a) Before submitting a bid, bidders shall carefully examine the plans and specifications and contract documents, visit the site of the work, fully inform themselves as to all existing conditions and limitations.
- (b) Bids shall be submitted on the "PROPOSAL" forms provided and delivered to the City of Goodyear City Clerk's Office, 190 N. Litchfield Road, Goodyear, AZ, on or before the day and hour set in the "NOTICE TO CONTRACTORS," as published. Bids shall be enclosed in a sealed envelope marked on the outside lower right-hand corner indicating:
 - 1. The bidder's name and address.
 - 2. The project number.
 - 3. The title of the project.
 - 4. The time and date the bids are to be received.
- (c) It is the sole responsibility of the bidder to see that his bid is received in proper time. Any bids received after the scheduled closing time for receipt of bids will be returned to the bidder unopened.
- (d) The signatures of all persons shall be in longhand. Any interlineations, alterations, or erasures must be initialed by the signer of the bid.
- (e) Bids shall not contain any recapitulations of the work to be done. No oral, facsimile, telephonic, or modified proposals will be considered.
- 3. BID SECURITY: Each proposal shall be accompanied by a certified or cashier's check or bid bond, with a properly executed Power of Attorney attached, in an amount equal at least to ten percent (10%) of the proposal payable without condition to the City. The proposal guarantee shall guarantee that the bidder, if awarded the contract, will, within ten (10) working days after the award, execute such contract in accordance with the proposal and in manner and form required by the contract documents, and will furnish good and sufficient bond for the faithful performance of the same, a payment bond and a certificate of insurance. The bid securities of the three (3) lowest bidders will be retained until the contract is awarded, or other disposition made thereof. The bid securities of all bidders, except the three (3) lowest, will be returned promptly after the canvass of bids. In the event the Contractor fails, within ten (10) working days after the award, to execute said Contract and deliver the Performance and Labor and Material Payment Bonds and the Certificate of Insurance, the Bid Security shall become the property of the City.

- 4. WITHDRAWAL OF BID: Any bidder may withdraw his bid, either personally, by facsimile or by written request, at any time prior to the scheduled closing time for receipt of bids. No bid may be withdrawn by telephone. Any bid withdrawn will not be opened and will be returned to the bidder. After opening and reading of the bids, no bidder may withdraw his bid for a period of fifty (50) days from the date of opening and reading.
- 5. LATE BIDS: Bids received after the scheduled closing time for receipt of bids, as contained in the "Notice to Contractors," will not be considered and will be returned to the bidder.
- 6. AWARD OR REJECTION OF BIDS: The contract will be awarded to the lowest and best qualified responsive bidder complying with these instructions and with the "NOTICE TO CONTRACTORS." The City of Goodyear, Arizona, however, reserves the right to accept or reject any or all bids or to waive any or all informalities or irregularities in the bid. Alternates may be accepted depending upon the availability of City funds. Accepted alternates will be considered in determining the lowest responsive and responsible bidder.
- 7. BIDDERS INTERESTED IN MORE THAN ONE BID: No person, firm or corporation shall be allowed to make, file, or be interested in more than one (1) bid for the same work unless alternate bids are called for in the specifications or any addenda. A person, firm, or corporation who has submitted a sub-proposal to a bidder, or who has quoted prices on materials to a bidder is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders.
- 8. CONTRACT: Following the bid review and selection process, the highest qualified firm will enter into the negotiation process for a contract. This contract will be submitted to the City Council for approval. The contract shall provide for the successful BIDDER to supply the necessary plans, specifications and contract delivery documents including certificate of insurance, performance and payment bonds, management and delivery plans, and methods for the successful completion of the Work within the time and budget agreed to by the parties. A guaranteed maximum price will be defined within the contract documents.
- 9. CONTRACT, BONDS AND INSURANCE: The form of contract, which the successful bidder as Contractor will be required to execute, and the forms of bonds and insurance form which he will be required to furnish are included in the contract documents and should be carefully examined by the bidder. The successful bidder shall use the forms provided or such other forms as are acceptable by the City. The contract, bonds and insurance form will be executed in four (4) original counterparts. "All bonds shall be issued by companies licensed with the Arizona Department of Insurance and authorized to issue such bonds in this state. NO BONDS ISSUED BY INDIVIDUAL SURETIES WILL BE ACCEPTED. The company issuing any bond shall have a rating of not less than A- and no less than category VIII per the A.M. BEST rating available at the time this project was let to bid.
- 10. INSURANCE: Without limiting any of their obligations or liabilities, the CONTRACTOR, at his own expense, shall purchase and maintain the minimum insurance specified below with companies duly licensed or otherwise approved by the State of Arizona, Department of Insurance, and in form reasonably satisfactory to the CITY. Each insurer shall have a current A.M. Best Company, Inc. rating of not less than A- and a category rating of not less than "8." Use of alternative insurers requires prior approval from CITY. Insurance provided by CONTRACTOR shall be primary.

A. General Clauses

- 1. Additional Insured. The insurance coverage, except Workers' Compensation and in Professional Liability, required by this contract, shall name the CITY, its agents, representatives, directors, officials, employees, and officers, as additional insured.
- 2. Coverage Term. All insurance required herein shall be maintained in full force and effect until Services required to be performed under the terms of the Contract are satisfactorily completed and formally accepted; failure to do so may constitute a material breach of this Contract, at the sole discretion of the CITY.
- 3. Primary Coverage. The CONTRACTOR'S insurance, except Worker's Compensation and Professional Liability, shall be primary insurance as respects CITY and any insurance or self insurance maintained by CITY shall be excess of the CONTRACTOR'S insurance and shall not contribute to it.
- 4. Claim Reporting. Any failure to comply with the claim reporting provisions of the policies or any breach of a policy warranty shall not affect coverage afforded under the policy to protect CITY.
- 5. Waiver. The policies, except Workers' Compensation and Professional Liability, shall contain a waiver of transfer rights of recovery (subrogation) against CITY, its agents, representatives, directors, officers, and employees for any claims arising out of the work of the CONTRACTOR.
- 6. Deductible/Retention. The policies may provide coverage, which contain deductibles or self insured retentions. The CONTRACTOR shall be solely responsible for deductible and/or self insured retentions. The CONTRACTOR shall, if required by the City, post a performance bond equal to the deductible or self-insured retention level.
- 7. Certificates of Insurance. Prior to commencing services under this Contract, CONTRACTOR shall furnish CITY with Certificates of Insurance, or formal endorsements as required by the Contract, issued by CONTRACTOR'S insurer(s), as evidence that policies providing the required coverage, conditions, and limits required by this Contract are in full force and effect. Such certificates shall identify this Contract number and shall provide for not less than thirty (30) days advance Notice of Cancellation, Termination, or Material Alteration. Such certificates shall be sent directly to Dean Coughenour, Risk Management Department, City of Goodyear, 190 N Litchfield Road, PO Box 5100, Goodyear, Arizona 85338.

B. Workers' Compensation

The CONTRACTOR shall carry Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction over CONTRACTOR employees engaged in the performance of the Services.

In case services are subcontracted, the CONTRACTOR will require the SubCONTRACTOR to provide Workers' Compensation and Employer's Liability to at least the same extent as provided by CONTRACTOR.

C. Automobile Liability

Commercial/Business Automobile Liability insurance with a combined single limit for bodily injury and property damages of not less than \$1,000,000.00 each occurrence, regarding any owned, hired, and non-owned vehicles assigned to or used in performance of the CONTRACTOR services. Coverage will be at least as broad as coverage Code 1 "any auto" (Insurance Service Office policy form CA 0001 1/87 or any replacement there of).

D. Commercial General Liability

Commercial General Liability insurance with unimpaired limit of not less than \$1,000,000, for each occurrence and \$2,000,000 in the aggregate. The policy shall include coverage for bodily injury, property damage, personal injury, products and contractual covering, but not limited to, the liability assumed under the indemnification provisions of Section IX.B of this Contract which coverage will be at least as broad as Insurance Service Office policy form CG 001 1-11-88 or any replacement thereof. The certificate of insurance for the Commercial General Liability insurance policy shall expressly cover CONTRACTOR'S obligation of indemnification required in Section IX of this agreement.

A general liability insurance policy may not be written on a "claims made" basis.

E. Umbrella/Excess Liability

Umbrella/Excess Liability insurance with an unimpaired limit of not less than \$1,000,000.00 per occurrence combined limit Bodily Injury and Property Damage, that "follows form" and applies in excess of the Commercial General Liability, Automobile Liability, and Employer's Liability, as required above.

Such certificate or evidence of continuous coverage shall be provided on a periodic basis for a minimum of two (2) years after completion of contract, if the insurance was a claims-made policy, and shall contain a certification that the claims period for such insurance is retroactive to the effective date of this contract. In the event the Contractor fails to provide such certificate of coverage retroactive to the beginning date of this contract, the City may, but shall not be required to, purchase insurance, if available to protect itself against any losses which would have been covered by the errors and omissions policy Contractor is required to maintain under this article. If the City elects to purchase the insurance under this provision, Contractor shall be liable to the City for all costs incurred by the City for purchasing such insurance.

The Contractor shall submit to the City a certificate of insurance evidencing the coverage and limits stated in the foregoing paragraph within ten (10) days of award of this contract. Insurance evidenced by the certificate shall not expire, be canceled, or materially changed without thirty (30) days prior written notice to the City, and a statement to that effect must appear on the face of the certificate and the certificate shall be signed by a person authorized to bind the insurer.

11. INTERPRETATION OF PLANS AND DOCUMENTS: If any person contemplating a bid for proposed contract is in doubt as to the true meaning of any part of the plans, specifications, or other proposed contract documents, or finds discrepancies in or omissions from the plans and specifications, he may submit to the Public Works Department, a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery. Questions received

less than ninety-six (96) hours before the bid opening time may not be answered. Any interpretation or correction of the documents will be made only by Addendum, duly issued and a copy of such Addendum will be mailed or delivered to each person receiving a set of such documents. The City of Goodyear will not be responsible for any other explanations or interpretations of the proposed documents.

- 12. CHANGES TO PLANS AND DOCUMENTS: Any changes to the plans and documents shall be made only by Addendum. No verbal or other changes to the plans and documents will be valid. A copy of each Addendum will be mailed or delivered as provided in Section 11 below.
- 13. ADDENDUM: Any addenda will be faxed, mailed or delivered to all who are known by the City to have received a complete set of bid documents, and to offices where bid documents have been filed for review purposes. It is the responsibility of each bidder to ascertain that he has received all addenda issued by telephoning the office identified in the Notice to Contractors as the location where bid documents are available prior to submitting his bid.

Bidders shall acknowledge all addenda in the appropriate location on the "PROPOSAL" form. Failure to acknowledge receipt of Addenda shall render the bid proposal non-responsive and it will be rejected.

- 14. ASSIGNMENT OF CONTRACT: No assignment by the Contractor of any contract to be entered into hereunder, or any part thereof, or of funds to be received thereunder by the Contractor, will be recognized by the Owner unless such assignment has had prior approval of the Owner, and the Surety has been given due notice of such assignment in writing and has consented thereto in writing.
- 15. PLANS AND SPECIFICATIONS TO SUCCESSFUL BIDDER: The successful bidder may obtain five (5) sets of plans and specifications for this project from the City at no cost.
- 16. TIME OF COMPLETION: The Contractor shall commence work under this project on or before the tenth day following receipt of the notice to proceed for that project from the City of Goodyear and shall fully complete all work under the project within sixty (60) consecutive calendar days from and including the date of receipt of such notice to proceed. Time is of the essence in the completion of all work required under this contract. The Contractor shall, at all times, during the continuance of the contract, prosecute the work with such force and equipment as is sufficient to complete all work within the time specified.
- 17. CITY OF GOODYEAR TRANSACTION PRIVILEGE TAX: The City of Goodyear transaction privilege tax shall **NOT** be waived under the conditions of this contract. The current privilege tax rate can be obtained from the City of Goodyear Finance Department. The Contractor shall be responsible for reporting and payment of all city, county, state or federal taxes.
- 18. PRE-BID CONFERENCE: A pre-bid conference will be held on January 12, 2004, at 10:00 a.m., in the Public Works Department Administration Conference Room, 120 East Western Avenue, Goodyear Arizona. Bidders, contractors, and other interested parties are invited to attend this conference which will be conducted by the Owner and Engineer to answer any questions.
- 19. ALTERNATES: Alternate proposals will not be considered unless called for in the documents or any addenda thereto. When alternates are requested, all requested alternates or alternate bid items, unless otherwise stated, shall be bid. If no change in the base bid will occur with the alternate, enter "No

Change."

20. APPROVAL OF SUBSTITUTIONS: The materials, products and equipment described in the Documents and Addenda establish a standard or required function, dimension, appearance and quality to be met by any proposed substitution. No substitute will be considered, before bid opening, unless written request for approval has been received by the Public Works Director at least ten (10) working days prior to the scheduled closing time for receipt of bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including any drawings, cuts, performance and test data and any other information necessary for evaluation of the substitute. Bidder shall not be entitled to approval of a substitute.

If a substitute is approved, the approval shall be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

21. USE OF "EQUALS": When the specifications for materials, articles, products and equipment state "or equal," contractor may bid upon, and use materials, articles, products and equipment which will perform equally the duties imposed by the general design. The City Public Works Department will have the final approval of all materials, articles, products and equipment proposed to be used as an "equal." It shall not be purchased or installed without the prior written approval from the City Public Works Department.

Approvals for "equals," before bid opening, may be requested in writing to the City Public Works Department for approval. Requests must be received at least ten (10) days prior to the date set for opening the Bid Proposals. The request shall state the name of the material, article, product or equipment for which the item is sought to be considered an equal and a complete description of the proposed equal including any drawings, cuts, performance and test data and any other information necessary for approval of the equal. All approvals will be issued in the form of an addendum.

- 22. EXAMINATION OF CONTRACT DOCUMENTS AND VISIT SITE: Before submitting a Bid Proposal, bidders should carefully examine the Contract Documents, visit the site of the work, fully inform themselves as to all existing conditions and limitations. No consideration will be granted for any alleged misunderstanding of the material, articles or piece of equipment to be furnished or work to be done. It is understood that the tender of the Bid Proposal carries with it the agreement to all items and conditions referred to herein or indicated in the Contract Documents.
- 23. BIDDERS IN DEFAULT: No bid will be awarded to any person, firm or corporation that is in arrears or is in default to the City of Goodyear upon any debt or contract, or that is a defaulter as surety or otherwise upon any obligation to the City of Goodyear, or has failed to faithfully perform any previous contract with the City of Goodyear.

END OF INFORMATION FOR BIDDERS

SUPPLEMENTAL GENERAL CONDITIONS

1. GENERAL: All construction shall be in compliance with the "Uniform Standard Specifications for Public Works Construction," which are sponsored and distributed by the Maricopa Association of Governments. Copies of these documents, with revisions, are on file in the office of the City Engineer of the City of Goodyear, and are hereby made a part of these Contract Documents.

Whenever in the Uniform Standard Specifications, the words "The Contracting Agency" are used, the meaning shall be the City of Goodyear.

In all cases where ASTM, AASHTO, AWWA, USAG, Federal, City of Phoenix, MAG Specifications, Maricopa County, Arizona State Highway, or other standard specifications are referred to, unless otherwise stated, revisions, supplements or addenda issued on or before the date of this contract, shall prevail. In the event of any conflict between these project specifications and the requirements of the plans, detail drawings, MAG Standard Details and Specifications, these project specifications shall prevail.

2. DEFINITIONS: The following terms, as used in or pertaining to the Contract Documents, are defined as follows:

CITY: The word "City" refers to the City of Goodyear, Arizona. The official representative of said City in these proceedings shall be the Public Works Director.

CONTRACTOR: The word "Contractor" means the person, firm, or corporation with whom the Contract is made by the City.

MATERIALS: The term "Materials" includes, in addition to materials incorporated in the project, equipment and other material used and/or consumed in the performance of the work.

SUBCONTRACTOR: The word "Subcontractor" includes those having a direct contract with the Contractor and those who furnish material worked to a special design according to the plans and/or specifications for this work, but does not include those who merely furnish materials not so worked.

ENGINEER: The word "Engineer" means a person, firm or corporation duly authorized by the City, to act for the City in staking out the work, inspecting materials and construction, and interpreting plans and specifications.

CONTRACT DOCUMENTS: The words "Contract Documents" mean the Notice to Contractors, Information for Bidders, "Uniform Standard Specifications for Public Works Construction," Supplemental General Conditions, Special Provisions, Supplemental Specifications, Proposal, Contract, Payment Bond, Performance Bond, Certificates of Insurance, Plans and Addenda thereto.

- 3. PROPOSAL QUANTITIES: It is expressly understood and agreed by the parties hereto that the quantities of the various classes of work to be done and material to be furnished under this Contract, which have been estimated as stated in the Proposal, are only approximate and are to be used SOLELY for the purpose of comparing, on a consistent basis, the proposals offered for the work under this Contract; and the Contractor further agrees that the City will not be held responsible if any of the quantities shall be found incorrect; and the Contractor will not make any claim for damages or for loss of profits because of a difference between the quantities of the various classes of work as estimated and the work actually done. If any error, omission, or mis-statement is found to occur in the estimated quantities, the same shall not invalidate this Contract or release the Contractor from the execution and completion of the whole or any part of the work in accordance with the specifications and the plans herein mentioned, or for the prices herein agreed upon and fixed therefore, or excuse him from any of the obligations or liabilities hereunder, or entitle him to any damages or compensation except as may be provided for in this Contract.
- 4. WITHDRAWAL OF PROPOSALS: No proposal shall be withdrawn following the opening and reading of the bids for a period of 50 days from the date of opening without the consent of the contracting agency through the body or agent duly authorized to accept or reject the proposal.
- 5. RESPONSIBILITY FOR DAMAGE CLAIMS: The Contractor shall indemnify and save harmless the City and its officers, agents and representatives from all suits, actions, loss damage, expense, cost or claims of any character or nature brought on account of any injuries or damages sustained by a person or property arising out of the work done in fulfillment of the construction of the improvement under the terms of this agreement, or on account of any act or omission by the Contractor or his agents, or from any claims or amounts arising or recovered under Workmen's Compensation Laws or any other law, bylaw, ordinance, or order or decree.
- 6. LOSSES AND DAMAGES: All loss or damage arising out of the nature of the work to be done or from the action of the elements, or from any unforeseen circumstances in the prosecution of the same, or from any unusual obstructions or difficulties which may be encountered in and/or during the prosecution of the work, or from any casualty whatsoever of every description, shall be sustained and borne by the Contractor at his own cost and expense except as otherwise provided by the contract documents or the laws of the State of Arizona.
- 7. DUST PREVENTION: The Contractor shall take whatever steps, procedures or means required to prevent abnormal dust conditions due to his construction operations in connection with this contract. The dust control measures shall be maintained at all times during construction of the project, to the satisfaction of the Engineer, in accordance with the requirements of the "Maricopa County Health Department Air Pollution Control Regulations" which have been adopted pursuant to the authority granted by Section 36-779, Arizona Revised Statutes.

The Contractor shall be required to obtain the necessary permit from the Maricopa County Air Pollution Control Bureau, 1001 N. Central Ave., Phoenix, Arizona 85004 - telephone (602) 506-6727.

8. EXCESS MATERIAL: Excess material shall be removed from the work site and wasted at a location approved by the Engineer. Broken concrete and asphalt may be delivered to the Glendale Sanitary Landfill located at 115th Avenue and Glendale Avenue. The prevailing regulations and fee schedule will not be waived for work under this project. All materials, to be disposed of at the landfill,

shall be weighed and disposed of at the prevailing rate.

9. STOCKPILE OF MATERIALS: The Contractor may place or stockpile materials in the public right-of-way, if approved by the Engineer, provided they <u>do not</u> prevent access to adjacent properties or prevent compliance with traffic regulations.

Traffic shall not be required to travel over stockpiled materials, and proper dust control shall be maintained.

- 10. REFUSE COLLECTION ACCESS: At any time the project construction shall require the closure or disruption of traffic in any roadway, alley, or refuse collection easement such that normal refuse collection will be interfered with, the Contractor shall, at least 48 hours prior to causing such closure or disruption, make arrangements with the Public Works Department in order that refuse collection service can be maintained.
- 11. CLEAN-UP: After all work under this contract is completed, the Contractor shall remove all loose concrete, lumber, wire, reinforcing, debris, and other materials not incorporated in the work, from the site of the work. Clean-up shall include the removal of all excess pointing mortar materials within pipes and removal of over-size rocks and boulders left after finish grading. The contractor shall provide for the legal disposal of all waste products, debris, etc., and shall make necessary arrangements for such disposal.
- 12. PROTECTION OF FINISHED OR PARTIALLY FINISHED WORK: The Contractor shall properly guard and protect all finished or partially finished work, and shall be responsible for the same until the entire contract is completed and accepted, in writing, by the City. The Contractor shall turn over the entire work in full accordance with the specifications before final settlement shall be made.
- 13. STATUS OF EMPLOYEES: Contractor shall be responsible for assuring the legal working status of its employees and its subcontractor's employees.
- 14. LAWS AND REGULATIONS: This Contract shall be governed by and constructed in accordance with the laws of the State of Arizona. The Contractor shall keep himself fully informed of all existing and future City and County Ordinances and Regulations and State and Federal Laws and Occupational Safety and Health Standards (OSHA) in any manner affecting the work herein specified. He shall at all times observe and comply with said Ordinances, Regulations, or Laws.
- 15. PERMITS: It will be the duty of the Contractor to determine that all the necessary permits have been obtained. The Contractor shall, at his own expense, obtain all required permits which have not been furnished by the City. A no-fee permit will be issued for work in the City of Goodyear right-of-way and easement. (Also see Paragraph 7. Dust Prevention.)
- 16. ELECTRIC POWER AND WATER: The Contractor shall make his own arrangements for electric power and water. Subject to the convenience of the City, he may be permitted to connect to existing facilities where available, but he shall meter and bear the cost of such power or water. Fire hydrant meters may be obtained from the City of Goodyear. Installation and removal of meters should be scheduled at least forty-eight (48) hours in advance through the Public Works/Utilities Division at 623-932-1637. A \$150.00 application and installation fee is required for each meter. The cost of the

water is at the prevailing rate.

- 17. SURVEY CONTROL POINTS AND MONUMENTS: Existing survey monuments indicated on the plans or found during construction shall be protected by the Contractor, and in the event removal is necessary, removal and replacement shall be performed by permission of the Engineer, under direct supervision of the Engineer or his authorized representative. Survey monuments shall be constructed to conform to the requirements of MAG Specifications, Section 405, and Standard Details.
- 18. EXISTING UTILITIES: The Contractor is hereby advised that the location of all utilities, as shown on the plans, may not be complete nor exact and the Contractor shall satisfy himself as to the exact location of the utilities by contacting Blue Stake or the utility companies before proceeding with the work. After the underground utilities are located by Blue Stake or the utility company, the contractor shall excavate in a careful and prudent manner to prevent damage to the underground utilities.

In the event an existing underground City of Goodyear water or sewer line, that has been properly identified, is damaged by the Contractor, the Contractor shall be responsible for the repairs at its expense.

The exact location of all existing underground service utilities, whether or not indicated on the plans, shall be determined by the Contractor at no expense to the City, and he shall conduct his work so as to prevent interruption of service or damage to them.

The Contractor shall protect existing utility services and be responsible for their replacement if damaged by him, or to make necessary adjustment in their location, if required, in order to complete the work for his Contract.

Utility companies and other interested parties have been provided with construction plans and the construction schedule for this project. The Contractor shall comply with MAG Specifications 105.6 to cooperate with the utility companies.

- 19. MAINTENANCE OF IRRIGATION FACILITIES: Where irrigation facilities interfere with construction, the Contractor shall remove and replace the affected irrigation facilities to its original condition. Final acceptance of replaced facilities will depend upon final approval of the Engineer.
- 20. OVERHEAD UTILITY LINES AND POLES: Contractor is advised that when work around overhead lines and poles is required on a project, he is required to coordinate with Utility Companies who own and operate overhead lines and poles. The coordination may include, but not be limited to the following activities: pole bracing, de-energizing of lines, and temporary relocations. Contractor is responsible to contact the applicable Utility Company representative and discuss his proposed construction methods; in order to determine what actions the Utility Company must take and the costs related to those actions. The Contractor shall include these costs in the applicable bid items for this project.

The primary and the backup representatives for this review and cost determinations are as follows:

Arizona Public Service:	Mr. Bobby Garza/Ed Ramirez	602-371-7989
U.S. West:	Mr. Robert Arrieta	602-630-5476
Salt River Power:	Mr. Al Baizel	602-236-0840
Cox Communications:	Mr. Walter Coombs	623-322-7288

- 21. RIGHTS-OF-WAY: The City will provide rights-of-way and easements for all work specified in this Contract, and the Contractor shall not enter or occupy with man, tools, equipment or materials any private ground outside the property of the City of Goodyear, Maricopa County, Arizona, without the consent of the Owner.
- 22. SUBCONTRACTS: Subcontracts shall be in accordance with, and the Contractor shall be bound by, the following provisions:

All subcontracts shall be subject to the approval of the City.

All subcontracts shall be in writing and shall provide that all work to be performed thereunder shall be performed in accordance with the terms of the Contract.

Certified copies of any and all subcontracts shall be furnished to the City Engineering Department; however, prices may be omitted.

Subcontracts shall conform to the regulations governing employment of labor.

The subcontracting of any part of the work will in no way relieve the Contractor of his responsibility under the Contract.

23. PRE-CONSTRUCTION CONFERENCE: After completion of the Contract Documents, to include bonds, insurance and signatures, and prior to the commencement of any work on the project, the Engineer will schedule a Pre-Construction Conference. This will be held at the City of Goodyear, 200 South Calle Pueblo, Goodyear Arizona.

The purpose of this Conference is to establish a working relationship between the Contractor, Utility Companies, and the Engineer. The agenda will include critical elements of the construction schedule, procedures for handling shop drawings and other submittals, cost breakdown of major lump sum items, payment application and processing, coordination with the involved utility companies, emergency telephone numbers for all representatives involved in the course of construction, and establishment of the Notice to Proceed date.

Minimum attendance by the Contractor shall be a responsible official of the company/corporation, who is authorized to execute and sign documents on behalf of the company/corporation.

24. OVERTIME:

<u>Regular Work Hours</u>: The work required to be performed by the Plans and Specifications for the Project shall be performed only during regular working hours, unless the City has authorized overtime work in accordance

with the procedures set forth below. Regular working hours shall be defined as one 8-1/2 hour shift per day, Monday through Friday, or, upon prior approval of the City, one 10-1/2 hour shift per day on a compressed four day work week during Monday through Friday. Regular working hours shall not include Saturdays, Sundays or City recognized legal holidays.

<u>Authorization and Costs</u>: If the Contractor desires to schedule work for times other than regular work hours (overtime), the Contractor shall make a written request to the City at least two business days prior to the scheduled overtime. The City reserves the right to deny the request to work overtime based on the best interest and needs of the City. If an overtime request is denied, the City may, at its sole discretion, extend the contract time at no additional costs to the City.

In the event the Contractor does perform work overtime, with or without the prior approval of the City, the Contractor shall be responsible to the City for all additional costs that may be incurred by the City as a result of the Contractor's overtime work, including costs for engineering, inspections, testing, surveying and construction administration, all in accordance with MAG Section 108.5. However, the Contractor shall not be responsible for City's costs incurred as a result of overtime work requested by the City or overtime work resulting from an emergency which is not the responsibility of the Contractor or its employees, subcontractors or suppliers. The City's cost will be billed directly to the Contractor or may, at the City's option, be deducted from monies due the Contractor.

25. CONTRACTOR'S CONSTRUCTION SCHEDULE: Concurrently, with the execution of the contract and prior to the pre-construction conference, the Contractor shall submit a preliminary schedule for the Engineer's acceptance. The schedule shall be in sufficient detail to allow the Engineer to determine if the proposed schedule will conform to an approved program of construction operations, as determined by the contracting agency. Within ten calendar days after the preliminary schedule, described above, has been approved by the Engineer, the Contractor shall submit a progress schedule, utilizing the critical path method scheduling technique, showing the order in which he proposes to carry out the work, the dates on which he will start each phase of the work, and the contemplated date for completion of each phase. The Contractor shall not be permitted to commence construction until the schedule complying with this paragraph has been submitted to the City. The Contractor will not be granted any extension to the contract time or compensation for any damages as a result of the City's refusal to allow Contractor to commence construction until the critical path method progress schedule has been submitted and approved by the Engineer.

The critical path method (CPM) scheduling technique requires a breakdown of the entire work into individual tasks and an analysis of the number of days required to perform each task. The schedule submitted to the City should highlight and identify the critical path for the project. After the work is in progress, the Contractor shall submit supplementary progress schedules, using the critical path method technique, of the progress to date and projection for completion. The supplementary progress schedules shall be submitted with each pay request in accordance with the paragraph, "Payments to Contractors," of these Supplemental General Conditions. The progress schedules shall be subject to the approval of the Engineer. In the event the Contractor fails to submit a supplementary progress schedule acceptable to the Engineer, the City may withhold further progress payments to the Contractor until the Contractor submits an acceptable supplementary progress schedule, which is approved by the Engineer, to the City. Schedule changes requiring an increase in the City's engineering personnel on the project shall not be put into effect until the Engineer has approved such increase and made arrangements for the required additional personnel.

- 26. CHARACTER OF WORKMEN: None but skilled foremen and workmen shall be employed on work requiring special qualifications. When required by the Engineer, the Contractor shall discharge any person who is, in the opinion of the Engineer, disorderly, dangerous, insubordinate, incompetent, or otherwise objectionable. The Contractor shall keep the City harmless from damages or claims for compensation that may occur in the enforcement of this section of the specifications.
- 27. HINDRANCES AND DELAYS: Except as otherwise provided herein, no charge shall be made by the Contractor for hindrances or delays from any cause during the progress of the work embraced in this Contract; but such delays, if due to no fault or neglect of the Contractor, shall entitle the Contractor to an extension of time allowed for completing the work, sufficient to compensate for the delay, the amount of the delay to be determined by the Engineer, provided the Contractor shall give said Engineer immediate notice in writing of the cause of such delay.
- 27.1 <u>Delay</u>: In the event of a delay for which the City is solely responsible, which is unreasonable under the circumstances and which was not within the contemplation of City and Contractor at the time this Contract is executed, City and Contractor shall negotiate, in good faith, a payment by the City to Contractor for the expenses incurred by Contractor as a result of such delay. This provision shall not be construed to void any provision in the contract which requires notice of delay or provides for liquidated damages. However, if the delay is the result of any act or neglect of a third party, including the architect, engineer or other contractor employed by the City, or by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably foreseeable, unavoidable casualties, or any causes beyond the Contractor's control, the Contractor shall not be entitled to any payments or compensation for expenses incurred as a result of such delay, but the Contract Time shall be extended by Change Order for such reasonable time as the Engineer may determine. No extension or compensation will be granted for any delay which is the result, wholly or partially, of any act or neglect of Contractor or any Subcontractor hired by Contractor.

28. LIQUIDATED DAMAGES:

- 28.1 Should the contractor fail to <u>substantially complete</u> the work under this contract within the time for completion stated in the paragraph "Time of Completion," in the Information for Bidders, then the contractor shall pay the City of Goodyear, Arizona, liquidated damages, pursuant to the provisions of Section 108.9, Standard Specifications for Public Works Construction, Maricopa Association of Governments, until the work is substantially complete.
- 28.2 Should the contractor fail to <u>fully and finally complete</u> the work under this contract within the time for completion set forth in the paragraph "Time of Completion," in the Information for Bidders, even though the contractor has achieved substantial completion of the work within such time, then the contractor shall pay the City of Goodyear, liquidated damages (pursuant to the provisions of Section 108.9, Standard Specifications for Public Works Construction, Maricopa Association of Governments), in an amount equal to 50% of the applicable liquidated damage rate set forth in MAG Section 108.9 for each and every calendar day of delay until the work is fully and finally complete and accepted.
- 28.3 The date of substantial completion shall be the date when the work is sufficiently complete, in accordance with the contract documents, so the owner can fully occupy and utilize the work or designated portion thereof for the use for which it is intended, with all the project's parts and systems operable as

required by the contract documents and all the work is complete, accessible, operable, and usable by the owner for its intended purpose(s), and all parts, systems and sitework are 100% complete and cleaned for the owner's use. Only incidental corrective work and final cleaning (if required), beyond cleaning needed for the owner's full use, may remain for final completion.

- 28.4 Full and final completion shall be that date when all work under the project, including incidental corrective work under punch list and final cleaning, has been completed and the entire project is accepted by the owner.
- 29. CANCELLATION OF STATE CONTRACTS: Pursuant to A.R.S. Section 38-511, the City of Goodyear may, within three years after execution of the contract documents, cancel the contract, without penalty or further obligation, if any person significantly involved in initiating, negotiating, securing, drafting or creating the contract on behalf of the City of Goodyear is at any time while the contract or any extension of the contract is in effect, an employee or agent of any other party to the contract in any capacity or consultant to any other party of the contract with respect to the subject matter of the contract.
- 30. PAYMENTS TO CONTRACTOR: The measurements of quantities and the payments to the Contractor shall be in accordance with MAG Uniform Standard Specifications for Public Works Construction, Part 100 General Conditions, Section 109 Measurements and Payments.

Payments will be made on the basis of itemized, monthly statements prepared by the City and signed by the Contractor. The Contractor shall submit an itemized, duly certified and approved estimate for work completed through the last day of the preceding month in accordance with MAG Specifications, as amended by these Supplemental General Conditions. Upon approval of the pay estimate, the City will mail the check directly to the Contractor.

The pay estimate shall be accompanied by an updated progress schedule as required by these Supplemental General Conditions and a cash flow report when required by the Special Provisions. Approval of progress payments shall be conditional upon submittal of progress schedules and cash flow reports, when required, which are acceptable to the Engineer.

Upon 100% completion and acceptance of the project, and with the request for final payment, the Contractor shall complete and submit the "Contractor's Affidavit Regarding Settlement of Claims" form which is included in these specifications. Before final payment and release of retention, Contractor must arrange for its Surety to provide the City with a fully executed AIA Consent of Surety form. To avoid delays in the final payment, the Surety may send the Consent of Surety directly to the City via fax at (623) 932-3020, and mail the original to the City of Goodyear Public works Department, 120 East Western Avenue, Goodyear Arizona 85338.

31. WARRANTY PERIOD: In accordance with Section 108.8 of the Maricopa Association of Governments, Uniform Standard Specifications for Public Works Construction, all work shall be guaranteed against defective workmanship or materials for a period of one year from the date of acceptance. In the event defects develop within the warrantee period, you are required to initiate repairs within fourteen (14) days of receipt of written notice.

SPECIAL PROVISIONS

1. SCOPE OF WORK:

1.1: Provide all labor, materials, scaffolding, and equipment necessary for surface preparation and complete painting for the interior surface of the 2.0 million gallon potable water storage tank located at 1600 S. Bullard Avenue, Goodyear, Arizona, as per paint manufacturer's recommendations and the following specifications:

American Water Works Association (AWWA) – D102-97 – Painting Steel Water Storage Tanks Steel Structures Painting Council (SSPC) –89 Steel Structures Painting Council Specifications, Vol. 2

ASTM – D16-93-Standard Definitions of Terms Relating to Paint, Varnish, Lacquer, and related products

ASTM D2200-91-Pictorial Surface preparation Standards for Painting Steel Surfaces (SSPC-Visl-89)

ASTM D3359A-92-Methods for Measuring Adhesion by Tape Test – Method A

ASTM D390-92-Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings

ASTM D4417-84- Field Measurement of Surface Profile of Blast Cleaned Steel

NSF 61-90-Drinking Water System Components Health Effects

Maricopa Association of Governments (MAG) - Uniform Standard Specifications for Public Works Construction (Latest Revision)

- 1.2 Install a hypalon blending baffle pursuant to specifications.
- 1.3 Install cathodic protection system to tank interior and tank floor pursuant to specifications.
- 1.4 Replace water float, water level (probes), and screen vents with similar equipment as currently installed. All screen vent materials to be 316 stainless steel.

PAINTING SPECIFICATIONS

IMPORTANT NOTE:

Contractor must be aware that this tank may contain lead-based and/or chromate-based paint which when removed may release a toxic level of lead, and may be classified as a hazardous waste. Special provisions applying only to the surfaces where these toxic paints have been applied are denoted in this specification by the symbol "*SP*" following the paragraph number. Hereafter these surfaces will be referred to as "affected surfaces".

2. SITE INSTRUCTIONS

Prior to commencing Contractor is responsible for the cleaning and removal of possible sand deposits from water sedimentation and standing water in the tank.

- 2.1 Prepare, sandblast, paint interior surface of the tank listed in the Scope of Work. Above work includes any appurtenances such as ladders and ladder cages, overflow pipes, inflow and outflow pipes, support brackets for corrosion protection equipment, etc. All work shall be performed in accordance with OSHA and EPA requirements and State ad Local requirements.
- 2.2 Target (Water level indicator) shall be painted with black numbers (Tnemec color reference AB05

- or Porter International 5008 R). Gradations and numbers size shall be the same as existing. Pointer shall be painted red (Tnemec CC13). Surface preparation and generic paint shall be as detailed in Sections 4 and 5. If existing target material is aluminum or galvanized steel, no background shall be painted; but only numbers as specified herein.
- 2.3 Contractor shall prepare a project schedule and advise the Engineer a minimum of seven days in advance, of any schedule changes as work progresses. City personnel must be present when Contractor first enters site. Any operational or control functions at the site shall be operated by authorized City personnel only.
- 2.4 Contractor shall not permit his construction debris to accumulate at the job site, and shall be responsible for the gathering and disposal of spent abrasive and complete cleanup.
- 2.5 **SP** Spent abrasive containing lead and/or chromate paint resulting from the blasting of the "affected surfaces" may be classified as a hazardous waste. "Spent abrasives" shall be understood to mean the abrasive generated during the blasting operation, including the spent water imposed over the abrasive flow, paint residue and any other debris.
- 2.6 Care shall be exercised to prevent spent abrasive, water or dust from falling on surrounding buildings, unprotected vegetation, walkways, soils, structures and equipment by covering these areas with non-tearing tarps. Spent abrasive collecting on the ground shall be vacuumed regularly to prevent it from becoming wind blown. The site shall at all times be kept as clean as possible. At the end of the work day, all spent abrasive shall be thoroughly vacuumed and the site left with a neat appearance.
- 2.7 SP Spent abrasive resulting from the blasting of the "affected surfaces" shall be captured. Non-tearing tarps or plastic sheathing, platforms, partial or total enclosures, temporary barriers or structures, or similar containment methods may be employed for this purpose. These methods must be reviewed by the Engineer prior to start of work.
- 2.8 SP Spent abrasive resulting from the blasting of the "affected surfaces" will be disposed by the Contractor, and Contractor is responsible for gathering this waste. Contractor shall notify the Engineer when he is ready to begin collection of this waste. At that time, the Engineer will test a representative sample of such waste to determine the toxicity level. The City will provide a roll-off bin to contain the waste and will dispose of the waste at the end of the abrasive blasting phase. The bin shall be kept covered at all times, and labeled by the Contractor as "Hazardous Waste." All other waste, including spent abrasive generated by the blasting of non-affected surfaces shall be disposed by the Contractor.
- 2.9 All materials, including painting equipment, shall be stored in accordance with local, state and federal requirements for paints, toxic materials and hazardous materials. All rags shall be removed from the premises. All possible precautions shall be taken to prevent spontaneous fires.
- 2.10 All reasonable care shall be taken to protect against paint splatter and overspray. Contractor shall be responsible for any damage incurred to surrounding property resulting from his work on the tank.
- 2.11 Signs shall be posted, as required, to alert the public of any risks associated with sandblasting debris, painting overspray, etc. All efforts shall be made to prevent debris from becoming wind blown.
- 2.12 It is the responsibility of the Contractor to inquire, and comply with all City ordinances. Certain residential areas have restriction's regarding work hours and noise levels.

3. REPORTING SITUATIONS AND MISCELLANEOUS WORK

- 3.1 Tanks are expected to be relatively free of significant corrosion pits. However, if in the course of his work, Contractor detects pits which can have a detrimental effect on the structural integrity of the tank, he is to contact the Engineer for additional instructions.
- 3.2 Contractor shall be capable of performing repair work (or be able to subcontract such work) in potable water tanks. This work may involve welding of pits, and/or welding of patch plates. Any welding shall be done by AWS certified welders.
- 3.3 Bid package shall include the installation of 200 patch plates (4-inch square x ¼" thick) for possible floor repair needs. This item would be paid on a unit price per the amount in the bid schedule based on need and justification as approved by Engineer.

4. MATERIALS

- 4.1 A signed, written statement from the paint manufacturer shall be submitted to the Engineer, 20 days after the official Notice to Proceed date, attesting that the paint materials will not impart any compounds to the tank's water which would cause it to exceed:
 - A. Any existing United States Environmental Protection Agency established drinking water standard Maximum Contaminant Level (MCL) as listed below:

CONSTITUENT	MAXIMUM CO	NTAMINANT LEVEL
Arsenic	0.050	mg/L
Barium	1.000	mg/L
Cadmium	0.010	mg/L
Chromium	0.050	mg/L
Fluoride	Varies with	temperature
Lead	0.050	mg/l
Mercury	0.002	mg/l
Nitrate as N	10.000	mg/l
Selenium	0.010	mg/l
Silver	0.050	mg/l
Radium 226 and 228	5.000	pCi/l
Gross alpha activity	15.000	pCi/l
(Including radium 226,		
excluding radon and uranium)		
Beta and photon radioactivity,		
Detailed studies must be made		
if the gross beta activity exceeds	50.0	pCi/l
or	4.0	mre/yr
Total Coliforms		
a.) average of all samples in one month measure	d	
by the membrane filter technique.	1.0	per 100 ml
b.) maximum in more than 5 per cent of the		
samples measured by the membrane		
filter technique.	4.0	per 100 ml

Turbidity	0.2	ntu
Endrin	0.0002	mg/L
Lindane	0.004	mg/L
Methoychlor	0.1	mg/L
Toxaphene	0.005	mg/l
2,4-D	0.1	mg/L
2, 4, 5-TP (silver)	0.01	mg/L
Total Trihalomethanes	0.1	mg/L

B. Any ADHS "Actions Levels" as listed below:

<u>CONSTITUENT</u> <u>ACTION LEV</u>		<u>VEL</u>
A amulau ikuita	0.04	
Acrylonitrile	0.01	mg/l
Ethylene dibromide (EDB)	0.00001	mg/l
1, 2-dibromo-3-chloropropane (DBCP)	0.00002	mg/l
Bis (2-chloroethyl) ether	0.01	mg/l
1, 1, 2, 2-tetrachloroethane	0.0005	mg/l
Chloromethane	0.0005	mg/l
Dichlorodifluoromethane	0.001	mg/l
Trichlorofluoromethane	0.001	mg/l
CONCIDENT		
CONSTITUENT	<u>ACTION LEVEL</u>	
Bromethane	0.001	mg/l
Methylene chloride	0.001	mg/l
1, 1, 2-ttrichloroethane	0.001	mg/l
Tetrachloreoethane	0.003	mg/l
Aldicarb	0.007	mg/l
1, 2, 4, 5-tetrachlorobenzene	0.038	mg/l
Pentachlorobenzene	0.074	mg/l
Dichloropropanes/Dichloropropenes	0.087	mg/l
Acrolein	0.320	mg/l
Toluene	0.340	mg/l
Chlorobenzene	0.490	mg/l
Carbon disulfide	0.830	mg/l
Styrene	0.900	mg/l
Ethylbenzene	1.400	mg/l
•		

C. Proposed MCL's for 8 Volatile Organic Chemicals (as published in Federal Register dated November 13, 1985) as listed below:

CONSTITUENT	<u>ACTION LI</u>	EVEL
Trichloroethylene	0.005	mg/l
Carbon Tetrachloride	0.005	mg/l

Vinyl Chloride	0.001	mg/l
1, 2-Dichloroethane Benzene	0.005	mg/l
1, 1-Dichloroethylene	0.007	mg/l
1, 1, 1-Trichloroethylene	0.200	mg/l
1, 4-Dichlorobenzene	0.750	mg/l

- 4.2 The approved materials shall be delivered to the job site in their original unopened containers bearing the manufacturers name, number and batch number.
- 4.3 Interior paint shall be an epoxy approved in accordance with NSF/ANSI 61 Standard.

Primer coat shall be Tnemec 20-1255, Pota-Pox primer (beige), Porter International Magna-Line 7536 or approved equivalent. Primer coat shall be applied to a dry film thickness of 4.0 to 6.0 mils.

A stripe coat shall be applied between the primer and finish coat on all surface imperfections, welded, and overlaped areas. The Stripe coat material shall be the finish coat specifications. Finish coat shall be Tnemec 20-15BL, Pota-Pox finish (Tank White), Porter International Magna-Line 7530 or approved equivalent. Finish coat shall be applied to a dry film thickness of 5.0 to 7.0 mils.

Acceptable Total Dry Mil Thickness: 9.0 to 13.0

- 4.4 Coating shall conform to the generic types as specified in sections 4.3. Reference to proprietary products of Tnemec Company Inc. and Porter International were used to give a general indication of the quality expected.
- 4.5 Request for substitution of materials shall include manufacturers literature for each product stating: name, generic type, descriptive information, solids by volume, performance criteria, recommended film thickness, color and a list of local projects where each product has been used and rendered satisfactory service for at least three years. No request for substitution shall be considered that would decrease film thickness and/or number of coats or proposes a change in the generic type of coating specification.

5. SURFACE PREPARATION

- 5.1 Heavy deposits of oil or grease shall be removed from the surfaces prior to blast cleaning, by the methods outlined in SSPC SP1 "Solvent Cleaning". Small quantities of oil or grease may be removed by the blast cleaning operation. If oil and grease are removed by blast cleaning, the abrasive shall not be reused. The entire surface must be free of all oil, grease, dirt, dust and foreign matter. All welds, sharp edges and corners shall be ground to a smooth contour.
- 5.2 Interior surfaces and appurtenances shall be blast cleaned in accordance to an SSPC-SP10 near white metal blast cleaning.
- 5.3 The blast cleaned surface should be further treated or primed, as per this specification, within 1/2 hours after blast cleaning, when practicable, but in any event before any visible rust bloom develops. Apply field finish coat after primer is thoroughly dry.
- 5.4 Excessive rust scale may be removed by impact tools, as outlined in SSPC-SP2, "Hand Tool Cleaning", SSPC-SP3, "Power Tool Cleaning" or by special blast cleaning equipment.
- 5.5 Acceptable abrasives are copper slag with low lead content; crushed grit made of cast iron,

malleable iron, steel or synthetic grits. Maximum particle size shall be no larger than that passing through a #16, U.S. Standard Sieve. The largest commercial grade of metal grit permitted by this specification is SAE No. G-25 abrasive material. Abrasives shall be reused to minimize amount of waste generated, unless such reuse is detrimental to the surface. Silica sand shall not be used.

- Acceptable abrasive blasting procedures using the abrasives specified in section 4.5 shall be limited to:
 - a. Wet or Water Vapor utilizing a compressed air blast nozzle and water.
 - b. Closed Recirculating nozzle utilizing a compressed air blast nozzle and a system for recirculating and reuse of abrasive material. No dry blasting of "affected surfaces" shall be permitted.
- 5.7 The surface, if blasted by the closed recirculating nozzle method, shall be cleaned by vacuum to remove any traces of blast products from the surface any from pockets and corners. Compressed air, used for the blasting operation, shall be free of detrimental amounts of water or oil. Adequate separators and traps shall be provided.
- The surface, if wet sandblasted, shall be cleaned by rinsing with fresh water to which a suitable corrosion inhibitor has been added to prevent rusting, or with fresh water followed immediately by an inhibitive treatment. Rinsing shall be supplemented by brushing, if necessary, to remove any residue.
 - The recommended inhibitive treatment for blast cleaned surfaces is Alkanol Amide (Holdtight 102), or approved equivalent. This treatment is approved for use on immersed surfaces only. Contractor is responsible for using a safe and proper inhibitive treatment for the conditions in this specification. Contractor shall submit product data sheets to the Engineer a minimum of 48 hours prior to its use.
- 5.9 **SP** Spent water resulting from the cleaning operation of "affected surfaces", as described in Paragraph 2, may contain hazardous particulates. It shall be contained, recovered and disposed of as stipulated in Sections 2.5 and 2.6.
- Vacuum blast operations shall not be conducted on surfaces that will be wet after blast cleaning and before painting, or when ambient conditions are such that any visible rusting occurs before painting or coating.
- 5.11 Resandblast surfaces allowed to set overnight and surfaces that show rust bloom prior to priming.
- 5.12 Blast cleaning operations shall be done in such a manner that no damage is done to partially or entirely completed portions of the work.
- 5.13 The blast cleaned surface shall be examined for any traces of oil, grease, or smudges. If present, they shall be removed as outlined in SSPC-SP1, "Solvent Cleaning."
- 5.14 The height of profile of the anchor pattern produced on the surface shall be limited to a maximum height that will not be detrimental to the life of the paint film, and shall be as per paint manufacturer's recommendations. If the maximum particle sizes specified in Paragraph 5 produces an anchor pattern that is too high or too rough for the paint system, the abrasive size should be reduced. If the application of a second coat is deferred, an adequate reduction in the anchor pattern height shall be made.
- 5.15 The height of the anchor pattern can be determined by grinding a flat spot on the blasted surface until the bottom of the pits are almost reached. The height may then be measured with a micrometer depth gauge graduated to read 0.001" and with a base having a bearing length of 2" and a measuring rod of 3/32" diameter.
- 5.16 Where chemical contamination of the surface may occur, the steel should be painted as soon as possible after blast cleaning.

6. APPLICATION

- 6.1 Interior coatings shall be applied by the conventional or airless spray in accordance with the manufacturer's recommendations for immersion service.
- Paint shall be applied during good painting weather. Air and surface temperature shall be within limits as prescribed by the manufacturer for the coating being applied and work areas shall be reasonably free of airborne dust at the time of application and while coating is drying.
- 6.3 All surfaces to be painted shall be thoroughly dry before painting. No paint shall be applied under conditions of rain, fog, mist or when the relative humidity exceeds 85%, when the temperature is below 60 degrees Fahrenheit, or when steel surface is less than 10 degrees Fahrenheit above dew point.
- Materials shall be mixed, thinned and applied according to the manufacturer's printed instructions. Allow each coat to dry thoroughly (per manufacturer's recommendation) before applying next coat. Provide adequate ventilation for tank interior to carry off solvents during drying phase. (10 days for drying and paint fume dissipation).
- 6.5 Finish coats shall be uniform in color sheen without streaks, laps, runs, sags, or missed areas.
- Paint shall be applied at the manufacturer's published theoretical coverage in square feet per gallon.
- 6.7 Paint shall be applied within the specified mil thickness range described in sections 4.3. Coverage rates shall not be used as an acceptance standards.
- The dry paint film thickness above the peaks of the profile should equal the thickness known to be needed over a smooth surface for the desired protection. If it is not possible to use an abrasive sized small enough to produce a desirable height of profile, the dry paint film thickness should be increased to provide adequate thickness above the peaks.
- 6.9 Contractor is responsible to provide efficient lighting for inspection purposes.

7. QUALITY ASSURANCE AND INSPECTION

- 7.1 A third party NACE certified inspector., at no cost to the Contractor, shall be available for procedures involving surface preparation and application techniques, including job site inspections after award of contract. The authorized inspector shall be thoroughly familiar with SSPC criteria and shall have a minimum of three (3) years experience in the inspection of surface preparation and application of industrial coatings.
- 7.2 Contractor shall provide a certification from the paint manufacturer as being a qualified applicator of the specified product, and shall use individual trades qualified to perform the work required by this specification.
- 7.3 All work and materials shall be accessible to the inspector and the Engineer. All scaffolding, rigging or other means necessary to gain adequate access to any areas shall be provided by the Contractor. The Contractor shall correct such work as is found defective under this specification.
- 7.4 All inspection shall be performed in accordance with the guidelines and criteria stated in the SSPC Painting Manuel. The inspector shall be responsible for witnessing, verifying, inspecting and documenting the work and shall, at minimum, consist of the following inspection points:
 - 1) Pre-surface preparation inspections
 - 2) Determination of Surface Preparation Cleanliness and Profile.
 - 3) Inspection of Application Equipment.
 - 4) Witnessing Coating Mixing.
 - 5) Inspecting Coating Application prime and top coats.

- 6) Determination of Wet Film Thickness.
- 7) Determination of Dry Film Thickness.
- 8) Evaluating Cleanliness between Coats, and making sure no rust bloom develops.
- 9) Pinhole and holiday testing.
- 10) Evaluating Cure.
- 7.5 Profile readings, wet film thickness readings, and dry film thickness readings shall be taken at 45 degree intervals around the tank's circumference, every five (5) feet in height in a staggered manner. These readings shall be taken for the interior of the tank. Readings on appurtenances, shall be read at a minimum of five (5) locations each, in a random manner.
- 7.6 Wet film readings shall be taken by the applicator, and witnessed by the inspector.
- 7.7 All profile and thickness readings shall be documented in the inspector's log.
- 7.8 All thickness gages and micrometers used for inspection purposes shall be calibrated daily in accordance with SSPC-PA 2.
- 7.9 Inspector shall test for a pinhole free coating. Contractor must contact the Engineer for his presence during these tests. All holidays will be marked with non-grease type markers and repaired upon discovery at the Contractor's expense, and retested.
- 7.10 The inspector shall records the results of his tests and findings in a neat fashion, and submit copies of same to the Engineer. Any detrimental conditions or non-compliance to the specification shall be reported to the Engineer.

8. ACCEPTANCE

- 8.1 Request inspection and acceptance of each coat before applying the next coat.
- 8.2 Correct work that is not acceptable and request reinspection.

9. SUBMITTALS

- 9.1 The Contractor shall submit within 14 days prior to the Notice to Proceed:
 - 1.) A comprehensive schedule of his work.
 - 2.) Manufacturer's technical data and certification stating National Sanitation Foundation approval of the paint for use in potable water installations.
 - 3.) Letter of certification from paint manufacturer stating that the selected inspector is authorized by them and qualified to perform the inspection of surface preparation and painting.
 - 4.) Resume of experience for the paint manufacturer's authorized inspector.
 - 5.) Photocopies of all required permits as described in Supplemental General Conditions, Paragraph 15 and Special Provisions Paragraph 14.
 - 6.) Photocopies of operating procedures and personnel training for work in confined spaces and in toxic environments as described in Special Provisions, Paragraph 10.
 - 7.) A detailed procedure describing the proposed blast cleaning operation, abrasive capture and containment techniques, and safety measures to avoid the contamination of the natural environment or surrounding structures.
 - Copies of welder's certification, if required, as described in Special Provisions, Section 3.2.
- 9.2 No work shall begin until all submittals have been received and accepted by the Engineer unless otherwise instructed, in writing, by the Engineer.
- 9.3 The acceptance of any of the above by the Engineer does not relieve the Contractor from his

responsibility to comply with the requirements of this specification.

10. CONFINED SPACE PROCEDURES

- 10.1 This tank has been designated as a confined space by the City of Goodyear. As such, the Contractor shall conform to the following requirements of the City of Goodyear Interim Confined Space Entry Procedure regarding work in tanks.
- 10.2 Contractor shall establish written operating procedures for work in confined spaces as well as in toxic environments. Contractor shall use National Institute for Occupational Safety and Health guidelines for working in confined spaces for work activities inside the tank, as appropriate. The procedures shall incorporate provisions covering at least, but not limited to, the following subjects:
 - 1.) Pre-entry atmospheric testing for oxygen deficiency and toxic or explosive gases where appropriate.
 - 2.) Periodic atmosphere monitoring when work processes generate hazardous air contaminants.
 - 3.) Forced air ventilation.
 - 4.) Training of employees specific to working in confined spaces, and toxic environments.
 - 5.) Rescue equipment and procedures.
 - 6.) Communication methods and standby personnel.
 - 7.) Safety equipment, clothing, and protection in accordance with OSHA standards.
 - 8.) Special hazards of planned work activities. See OSHA standards 29 CFR 1910.94 "Ventilation"; 29 CFR 1926.103, and 29 CFR 1910.134 "Respiratory Protection"; 29 CFR 1926-353 "Ventilation and Protection in Welding, Cutting and heating."
 - 9.) Entry permit checklist.
- 11. **CONFINED SPACE** is defined as a tank, vessel, silo, vault, pit, open topped space more than four feet deep, or any other enclosed space that is not designated for continuous occupancy and has one or more of the following characteristics:
 - 1.) Contains an actual or potentially hazardous atmosphere, or other safety or health hazard;
 - 2.) Makes ready escape difficult (i.e., prevents egress in normal walking position); or
 - 3.) Restricts entry for rescue purposes.
- 12. CLASS "A" CONFINED SPACE pertains to a condition that is immediately dangerous to life and health; that is, any condition that poses an immediate threat to life, or which is likely to result in acute or immediate severe health effect. For example, an area that has a high concentration of toxins or flammable gases or a significant oxygen deficiency.
- Before entry into the tank each work day, the Contractor must evaluate the hazards or potential hazards to which the workers will be exposed. These include:
 - 1.) The physical characteristics of the tank (i.e., head bumpers, tripping, falling, footing, etc.).
 - 2.) The current and past uses of the tank which may effect the oxygen level, toxicity or flammability of the atmosphere in the space, or which may have left a residue of material which could fall on, engulf, or otherwise injure the worker.
 - 3.) Any special hazards arising from the location of the tank (i.e., relative to other operation, processes or structures) which may endanger personnel inside the tank.

- 4.) Any operation or processes that are to be carried out in, or which involve the tank, while workers or inspectors are inside.
- 5.) For any hot work such as welding, a reading of 10% LEL (Lower Explosive Limit) or 10% LFL (Lower Flammable Limit) as determined by atmospheric monitoring will classify the tank as a Class "A" Confined Space and is subject to the prohibitions or restrictions listed in Special Provisions, Paragraph 12.
- 12.2 No entry into the tank shall occur without monitoring of the atmosphere, using a gas detector each morning before work begins or whenever there is a three hour period where workers were not within the tank.
- 12.3 In any situation in which the gas detector alarm is activated, the tank shall be considered to be a Class "A" Confined Space and is subject to the prohibitions or restrictions listed in Special provisions, Paragraph 12.
- 12.4 If the gas detector is not in proper operating condition, the entry shall not be allowed.
- 12.5 For all tank entries, the Contractor shall furnish an outside observer who shall remain outside the tank at the work site until all workers and inspectors have exited the tank. The observer shall be trained in the use of SCBA equipment and have immediate access to two (2), Contractor furnished, SCBA units. No one shall enter or remain in the tank when the observer is absent from the job site.
- 12.6 The crew at the work site shall be able to notify the Fire Department if an emergency "Mandown" situation occurs.
- 12.7 No Class "A" Confined Space shall be entered unless specific procedures are approved by the Engineer and the City of Goodyear. If a Class "A" Confined Space must be entered on an emergency basis, then these procedures shall be followed:
 - 1.) The Contractor shall provide a minimum of two (2) outside observers.
 - 2.) Contract shall be made with the Fire Department prior to entry.
 - 3.) A SCBA shall be worn by the entering worker.
 - 4.) Two standby SCBA units shall be available.
 - 5.) The entering worker and at least one (1) topside observer shall be qualified for SCBA use.
 - 6.) Only work necessary to relieve the emergency condition shall be performed.

13. ADDITIONAL SAFETY REQUIREMENTS AND PRECAUTIONS

13.1 SP Work area shall have posted warning signs stating:

WARNING, LEAD HAZARD WORK AREA. NO SMOKING, EATING OR DRINKING.

- Nozzle blast operators exposed to blast dust shall wear a U.S. Bureau of Mines approved helmet connected to a source of clean, compressed air. Respiratory protection shall comply with OSHA regulations 29 CFR 1910.94, 29 CFR 1910.103, and 29 CFR 1910.134.
- 13.3 Filter type respirators should be worn by all workers who are exposed to blast dust environment. Adequate protection for personnel from flying particles shall be provided in any blasting operation. Respiratory protection shall comply with OSHA regulations 29 CFR 1926.103 and 29 CFR 1910.134.
- 13.4 Safety goggles shall be worn by all persons near any blasting operation.
- 13.5 Blast hose shall be grounded to dissipate static charges.
- 13.6 Contractor shall provide and workers will use, full protection in accordance with OSHA regulations for construction industry 29 CFR 1926.

14. PERMITS

- 14.1 Contractor shall be responsible for obtaining any and all permits required to perform this work. Work shall be in complete compliance with the City of Goodyear Building and Fire Codes.
- 14.2 Contractor must obtain a permit under Maricopa County Health Department pursuant to Air Pollution Control Rules 20 and 31.

15. PAINT AND APPLICATION WARRANTY

- 15.1 Contractor shall provide one (1) year warranty, from the time of final acceptance by the City of Goodyear or it's Agent, against defects in materials and workmanship.
- 15.2 Prior to the expiration of the warranty period, the tanks will be drained by City personnel to facilitate a walk-through inspection by the Contractor and Engineer. The Contractor shall provide labor and equipment necessary to remove any standing water and sediment from the floor of the tank, before the walk-through, to insure that any defects in the coating are readily visible.
- 15.3 In the event that defects are detected, the Contractor shall submit to the Engineer his proposed repair method along with a completion schedule. The Contractor shall complete the repair work within the scheduled time period.
- Upon completion of the repair work to the satisfaction of the Engineer, or if no repairs were necessary, the Contractor shall be responsible for disinfection of the tank in accordance with AWWA requirements, prior to its being returned to service.

16. HYPALON BAFFLE SPECIFICATIONS

1. Description of Work.

a. Scope. This Section includes furnishing all labor, material and equipment required for installation of a Hypalon Baffle to span one-half of the existing 158 foot diameter, 16 foot high welded steel ground storage tank.

2. Material.

a. The Hypalon Flexible Membrane shall be suitable for use with potable water and have a minimum thickness of 45 mils. The membrane shall be Product No. M-284, Burke Environmental Products, or approved equal.

3. Baffle Location.

a. The location within the tank of the Hypalon Baffle shall be determined in the field with input from the Contractor and Owner. The Baffle will extend across the radius of the tank and its orientation will be adjusted to accommodate the tank rafters. The membrane shall extend from the inside face of the exterior tank wall to the face of the center pipe support. The membrane shall extend from the tank floor to a minimum height of 15 feet 6 inches above the floor. The Baffle shall incorporate a sand-filled ballast tube at the bottom. The tube shall rest on the tank bottom without impacting tensile load to the Baffle Panel.

4. Installation.

a. The Contractor shall submit, for Engineer's approval, drawings which detail supports and connections for hanging Baffle at required location. The Baffle shall incorporate A304

stainless steel grommets of required diameter, for connection to clips to be welded to the tank sidewall and 8-inch center pipe support. In addition, all other connecting hardware shall incorporate A304 stainless steel. The drawings shall detail connections for supporting the Baffle from the tank roof.

5. Painting.

a. Any portion of the new interior or exterior coating system installed on the tank under this Contract shall be repaired per the recommendations of the paint manufacturer for the products utilized by the Contractor. The Contractor shall submit the coating repair procedures to be employed for review by the Owner prior to making repairs in the field.

6. Tank Disinfection.

a. The entire tank interior is to be disinfected in accordance with ANSI/AWWA C652.

7. Payment.

- a. Payment for furnishing and installing the Hypalon Baffle will be a Lump Sum Bid Item, and will include payment in full for submittal and approval of submittals by Engineer.
- b. Baffle material and design layout,
- c. Drawings of connecting hardware and materials for hanging Baffle,
- d. Repair, including procedures submittal, for painting interior/exterior portions of tank as required, & testing of repaired coatings
- e. Disinfection of tank interior upon acceptance of all work on the project. The Owner will provide the water required for filling the tank. If retesting is required, all expenses shall be the responsibility of the Contractor.

17. CATHODIC PROTECTION SPECIFICATIONS

1. Existing Tank.

a. The work covered by this section of the specifications, consists of furnishing all equipment, labor and materials for the installation of an automatically controlled, impressed-current cathodic protection for the interior of the existing 2 million gallon ground storage tank at Wellsite No. 11.

2. Existing Tank Additional.

a. During the erection of the existing tank, 28 5-inch diameter holes were provided in the tank roof. These holes were provided with anodized aluminum covers (1/8" x 6" diameter), aluminum bars and bolts (1/4" x 1" x 7") and red rubber gaskets. The Contractor is required to verify location and quantity of the holes, prior to submittal of the cathodic protection system drawings for approval.

3. Requirements.

a. Contractor shall install a complete automatically controlled impressed-current cathodic protection system for protecting the interior of the existing 2 million gallon, welded steel, ground storage tank. The tank is 158 feet in diameter and the shell is 16 feet in height. The protection system is required to meet all conditions, requirements and stipulations as shown in ANSI/AWWA D104-01. An impressed current of a minimum of -0.75 potential shall be applied to all wetted surfaces. The location of the tank handholes shall be field verified by the Contractor prior to submittal of shop drawings.

4. Affidavit of Compliance.

a. Contractor shall provide an affidavit of compliance with all applicable provisions of standard ANSI/AWWA D104-01. The affidavit shall be signed by a corrosion specialist and the Contractor.

5. Payment.

a. Payment for all work required in this section, as as detailed in the Plans and Specifications, shall be per Lump Sum Price shown in the contract bid item.

6. Electrical

a. All electrical work associated with the new cathodic protection system shall be performed per applicable NEC code requirements. All conduit, supports, uni-strut, and fittings shall be galvanized rigid conduit (GRC). All anchor bolts and hardware utilized shall be 304 stainless steel expansion anchors, minimum 3/8 inch diameter by 3 inches long.

18. ADDITIONAL PROVISIONS AND DEFINITIONS:

- 1. <u>Section</u>: Reference to a Section on the plans or in these Specifications shall mean a Section of the Uniform Standard Specifications for Public Works Construction, sponsored and distributed by Maricopa Association of Governments (MAG), latest revision. The provisions of MAG Uniform Standard Specifications and Details for Public Works Construction, which are not altered or modified by the drawings or by these Special Provisions or by any subsequently issued Addendum, shall apply to the contract even though the Contractor's attention is not specifically drawn to such provisions.
- 2. SUSPENSION OF WORK: The Engineer reserves the right to suspend the work wholly or in part if deemed necessary for the best interest of the City. This suspension will be without compensation to the Contractor, other than to adjust the contract time in accordance with Section 108.
- 3. COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS: In all instances wherein the item and/or specifications require installation or construction in accordance with either manufacturer's or supplier's recommendations and/or instructions, said recommendations and/or instructions shall be submitted with the applicable portions clearly marked for approval prior to the commencement of work on that item or portion of the contract.
- 4. ENERGIZED AERIAL ELECTRICAL POWER LINES: The utility company maintains energized aerial electrical power lines in the immediate vicinity of this project. Do not consider these lines to be insulated. Construction personnel working in proximity to these lines are exposed to an extreme hazard from electrical shock. Contractors, their employees, and all other construction personnel working on this project must be warned of the danger and instructed to take adequate protective measures, including maintaining a minimum ten (10) feet clearance between the lines and all construction equipment and personnel. (See: OSHA Standard 1926.550(a)15.) As an additional safety precaution, Contractors should also be instructed to call the utility company to arrange, if possible, to have these lines de-energized or relocated when the work reaches their immediate vicinity. The cost of such temporary arrangements would be borne by the Contractor. The utility company can often respond to such requests if two days advance notice is given, but some situations may require up to sixty (60) days lead time for relocation or other arrangements.

Bid Schedule – <u>Lump Sum Proposal</u>		
Place: City of Goodyear		
Date:		
Proposal of:		
A Corporation organized and existing under the law		
A partnership consisting of	;	
An individual trading as		
Or a consi		
TO THE HONORABLE MAYOR AND COUNCI CITY OF GOODYEAR GOODYEAR, ARIZONA	L	
Gentlemen and Ladies:		
The undersigned hereby proposes and agrees to furni equipment, transportation, and services for the cons Refurbishment , in strict conformity with the species	struction of Project 2004-010 - Storage Tank #1	
	DOLLARS (\$) (FIGURES)	
(WRITTEN)	(FIGURES)	
Bid Alternate A: Provide and install up to 200 4" x per the Contract specifications on an as needed basis		k
	DOLLARS (\$) (FIGURES)	
(WRITTEN)	(FIGURES)	

NOTE: IN CASE OF DISCREPANCY, THE AMOUNT SHOWN IN WORDS SHALL GOVERN

The undersigned hereby declares that he has visited the site(s) and has carefully examined the contract documents relating to the work covered by the above bid or bids.

Upon receipt of notice of the acceptance of this bid, we will executed the formal contract attached within ten (10) days, and will deliver one hundred percent (100%) Performance Bond for the faithful performance of this Contract, together with a one hundred percent (100%) Payment Bond and Certificate of Insurance.

The bid security attached, with endorsement, in the sum of ten percent (10%) of the total bid, is to become the property of the City of Goodyear, Arizona, in the event the Contract and Bonds are not executed within the time set forth, as liquidated damages for the delay and additional work caused

thereby.	the	ere	bv.
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The undersigned has checked carefully all the above figures and understands that the City of Goodyear, Arizona, will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

The undersigned understands that the Mayor and Council of the City of Goodyear, Arizona, reserves the right to reject any or all bids or to waive any informalities in the bid.

	Respectfully submitted,
Arizona Contractor's Classification and	Contractor
License No.	
	By: Print Name
	· · · · · · · · · · · · · · · · · · ·
	Complete Business Address
	Telephone Number:
	Fax Number:
Bidder shall signify receipt of all	Addenda here (if any):
	f all addenda shall render the bid proposal non-responsive and will be
	Acknowledged by:

CITY OF GOODYEAR

Subcontractor Listing and Certification of Contract Compliance

PROJECT - 2003-010 Storage Tank Refurbishment

<u>SUBCONTRACTOR</u>	WORK ELEMENTS	DBE(Y/N)*	AGENCY**
,			
	-		
			-
	-		
he undersigned hereby certifie	es that all subcontracts shall be in writing of the Contract. All subcontracts shall	be subject to approval by the	City. Certified copies
I subcontracts shall be furnis gulations governing employm	shed to the Engineer; however, prices a nent of labor.		
l subcontracts shall be furnis	shed to the Engineer; however, prices nent of labor.		
subcontracts shall be furnis gulations governing employm ame of Firm	ent of labor.		
I subcontracts shall be furnis gulations governing employm	ent of labor.		

^{*}Firms certified as Disadvantaged Business Enterprises. **Indicate certifying agency, e.g., ADOT, MCHD, COP, etc. This information is requested for information purposes only. The City of Goodyear is an equal opportunity employer and minority business enterprises and women's business enterprises are encouraged to submit bids.

STATUTORY BID BOND PURSUANT TO TITLE 34, CHAPTER 2, ARTICLE 1 OF THE ARIZONA REVISED STATUTES

(Penalty of this bond must not be less than 10% of the bid amount)

KNOW ALL MEN BY THESE PRESENTS:

That we,		
(hereinafter "Principal") as Principal, and		
	. (hereinafter called the	Surety) a corporation organized and
existing under the laws of the State of	, with its princip	al offices in the City of
as Surety, are held and firmly bound unto the	City of Goodyear (here	inafter "Obligee") in the amount of) for the payment whereof,
the said Principal and Surety bind themselves,	and their heirs, administ	trators, successors and assigns, jointly
and severally, firmly by these presents.		
WHEREAS, the said Principal has subn	nitted a bid for: 2004-010	0-Storage Tank #11 Refurbishment.
NOW, THEREFORE, if the Obligee she enter into a contract with the Obligee in accord Certificates of Insurance as specified in the Stafaithful performance of the Contract and for prosecution of the contract, or in the event of the Bonds and Certificates of Insurance, if the I penalty of the bond between the amount speciobligee may in good faith contract with another obligation is void. Otherwise, it remains in executed pursuant to the provisions of Section bond shall be determined in accordance with that length herein.	dance with the terms of andard Specifications we the prompt payment of the failure of the Principal Principal pays to the Obified in the Proposal and party to perform the worfull force and effect p 34-201, Arizona Revise	the proposal and give the Bonds and ith good and sufficient Surety for the labor and material furnished in the alto enter into such contract and give ligee the difference not to exceed the ad such larger amount for which the ork covered by the Proposal, then this rovided, however, that this bond is sed Statutes, and all liabilities on this
Witness our hands this day of	, 20	
	PRINCIPAL	SEAL
	Ву:	
	SURETY	SEAL
	AGENCY OF R	ECORD

CONTRACT

THIS AGREEMENT, mad	le and entered into this	day of	, 20	, by and
between the City of Goody	ear, Arizona, a municipal co	orporation, organ	nized and existing u	nder and by
virtue of the laws of the St	ate of Arizona, party of the	first part, hereina	ifter designated the	Owner, and
	of the C	City of	, County of _	
and State of	, party of the second p			
WITNESSETH: That the spayments made as provided and under the penalty expression work and furnish all mater. Agreement, free from all clinereinafter specified, that	I for in the proposal and spe ssed in the bonds hereto atta rials, tools, labor, and all a aims, liens and charges what are necessary for the co	cifications, to the ched, at his proper ppliances and approper in the material content of the content of	e Contractor by the ser cost and expense opurtenances called anner, and under the 2004-010-Storage	said Owner, to do all the I for by the conditions Tank #11
Refurbishment- for the su	m of:		Dollars (\$).

The work done and materials and equipment furnished shall be strictly pursuant to and in conformity with the specifications and plans. The specifications and drawings furnished by the Contractor with his proposal and the additional drawings or prints and other information to be furnished by the Contractor in accordance with the specifications are made a part of this Agreement when and as approved by the City of Goodyear, Arizona are intended to be complementary and all specifications, plans, drawings, or prints furnished by the Contractor and approved by the City of Goodyear shall be complementary therewith. Any work appearing in or upon the one and not mentioned in the others shall be executed according to the true intent and meaning of the said specifications and plans, drawings, or prints the same as though the said work were contained and described in all.

The Notice to Contractors, Information for Bidders, General Conditions, Special and Technical Provisions, Proposal, Bid Bond, Payment Bond, Performance Bond, Certificate of Insurance, Appendix, Plans and Addenda thereto, are hereby understood to be a part of this Contract.

It is further covenanted and agreed that the work shall be executed under the direction and supervision of the City of Goodyear, Arizona, or its properly authorized agents, on whose inspection all work shall be accepted or rejected.

The City shall have full power to reject or condemn all materials furnished or work performed under this contract which do not conform to the terms and conditions herein expressed.

To prevent all disputes and litigation, it is further agreed by and between the said City of Goodyear, Arizona, and said Contractor, that the Public Works Department, City of Goodyear, shall determine all questions in relation to the work and the construction thereof, and it shall in all cases decide all questions which may arise relative to the execution of the work under this contract on the part of the said Contractor and its estimates and decisions shall be final and conclusive; and such estimates and decisions, in case any question may arise, shall be a condition precedent to the right of said Contractor to receive any money or compensation for anything done or furnished under this contract.

SEVERABILITY: If any part of this contract is found by a court to be unenforceable, the remaining provisions shall, nonetheless, be enforceable to the extent allowed by law.

IN WITNESS WHEREOF, four (4) identical counterparts of this contract, each of which shall for all purposes be deemed an original thereof, have been duly executed by the parties hereinabove named, on the date and year first herein written.

ATTEST:	CITY OF GOODYEAR, ARIZONA PARTY OF THE FIRST PART (OWNER)
City Clerk	
(Seal)	Title
APPROVED: (AS TO FORM)	
City Attorney	
WITNESSES:	PARTY OF THE SECOND PART (CONTRACTOR)
	Title
WOMEN-OWNED/MINORITY BUSINESS [] YES [] NO
CITY OF GOODYEAR TRANSACTION PRIVI	LEGE TAX NO.
FEDERAL TAXPAYER ID NO.	

INDIVIDUAL SURETIES WILL NOT BE ACCEPTED

STATUTORY PERFORMANCE BOND PURSUANT TO TITLE 34, CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES (Penalty of this bond must be 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

That		(hereinafter called the Prin	
with its principal and firmly bound unto the Ci	office in the City of Goodyear, a	poration organized and existing under f, (hereinafter called the Sumunicipal corporation, (hereinafter caDollarty bind themselves, and their heirs, a	rrety), as Surety, are held lled the Obligee), in the
for the payment whereof; the sand assigns, jointly and sever	aid Principal and S ally, firmly by thes	urety bind themselves, and their heirs, a e presents.	dministrators, successors
		rtain written contract with the Obligee .0-STORAGE TANK #11 REFU! reof as fully and to the same extent as if	
faithfully perform and fulfill all the original term of said control any guaranty required undeterms, conditions, and agreement made, notice of which moving otherwise to remain in fulfilled, of the Arizona Revised States or ovisions of said Title, Chap	Il undertakings, coveract any extension the contract and ents of any and all of diffications to the Stull force and effect that this bond is executates, and all liabiter, and Article, to	cuted pursuant to the provisions of Titl lities on this bond shall be determined the extent as if it were copied at length	ts of said contract during trety, and during the life indertakings, covenants, intract that may hereafter bove obligation shall be e 34, Chapter 2, Article in accordance with the inherein.
The prevailing party or any pattorney's fees as may be fixed		rs judgment on this bond shall be entiudge thereof.	itled to such reasonable
Witness our hands this	day of	, 20	
		Principal	Seal
		Ву	
		Surety	Seal
		Agency of Record	
		Agency Address	
		Telephone Number:	

INDIVIDUAL SURETIES WILL NOT BE ACCEPTED

STATUTORY PAYMENT BOND PURSUANT TO TITLE 34, CHAPTER 2, ARTICLE 2, OF THE ARIZONA REVISED STATUTES (Penalty of this bond must be 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

That,		(hereinafter called the Principal), as Principal	ipal, and
thereingther collecting the third	at in the amount of	a corporation organized and existing under the city of, (hereinal not the City of Goodyear, a municipal corticle or and Surety bind themselves, y and severally, firmly by these presents.	LIMITE
WHEREAS, The Principal had day of, 20, to co contract is hereby referred to a herein.	s entered into a certain instruct 2004-010-STC ind made a part hereof	written contract with the Obligee, dated th DRAGE TANK #11 REFURBISHMENT as fully and to the same extent as if copied	e which at length
NOW, THEREFORE, THE C shall promptly pay all monies in the prosecution of the work to remain in full force and eff	due to all persons supp provided for in said C	OBLIGATION IS SUCH, that if the said all of the said of the said of the said on tract, then this obligation shall be void, or said on tract, then this obligation shall be void, or said on the said of the said o	Principal ontractors otherwise
with the provisions of Title 3 remedies on this bond shall in	34, Chapter 2, Article ure solely to such pers	en required of the said Principal in order to 2, of the Arizona Revised Statutes, all risons and shall be determined in accordance, Chapter and Article, to the same extent a	ights and with the
The prevailing party or any preasonable attorney's fees as r	party which recovers nay be fixed by the co	judgment on this bond shall be entitled out or a judge thereof.	to such
Witness our hands this	day of		
		Principal	Seal
		By	
		Surety	Seal
		Agency of Record	
		Agency Address	
		Telephone Number:	

CITY OF GOODYEAR, ARIZONA PUBLIC WORKS DEPARTMENT CERTIFICATE OF INSURANCE

The	
certifies that the following insurance policies have been issued on behalf of:	
Name of Insured	
Address of Insured	
Name and Address of Additional Named Insured:	
City of Goodyear, Arizona	
190 North Litchfield Road	
Goodyear, Arizona 85338	
•	

Type of Insurance	Carrier	Policy No.	Effect. Date	Min Amt of Coverage	Expiration Date	Limits of Liability
(1) Workmen's Compensation						Statutory
(2) Contractor's Protective Bodily Injury				\$1,000,000		Each Occurrence
(3) Contractor(s) Protective Property Damage				\$500,000 \$500,000		Each Accident Aggregate
(3) Contractual Bodily Injury				\$1,000,000 \$2,000,000		Each Occurrence Aggregate
(3) Contractual Property Damage				\$1,000,000 \$2,000,000		Each Occurrence Aggregate
(4) Automobile Bodily Injury & Property Damage				\$1,000,000		Each Occurrence
5) Owner's Liability				\$1,000,000		Each Occurrence

When the project includes construction of a new, or modification of an existing building (in addition to the above types):

(6)) Fire and Extended Coverage plus Vandalism and Malicious Mischief for the full amount of the contract, v	with the
	City of Goodyear named as an additional insured.	

Policy No.	Expiration Date	Amount

(7)	Um	brella	Cov	erage
1.7				

Policy No.	Expiration Date	Amount
		\$5,000,000 Each Occurrence

Policy includes coverage for:

- (A) 1. Damage caused by blasting
 - 2. Damage caused by collapse or structural injury
 - 3. Damage to underground utilities
- (B) Liability assumed in construction agreements and other types of contracts or agreements in effect in connection with insured operations.
- (C) All owned, hired or non-owned automotive equipment used in connection with the insured operation.
- (D) Owner's Liability Policy shall remain in effect from date of final acceptance until the time limit for filing against the project has passed. Prior to final acceptance, Contractor shall provide an executed Certificate of Insurance extending the policy to this date.

It is agreed that none of these policies will be canceled or changed so as to affect this certificate until ten (10) days written notice of such cancellation or change has been delivered to the City of Goodyear.

It is further agreed that:

These policies shall not expire until all work has been completed and the project has been accepted by the City of Goodyear. (If a policy does expire during the life of the Contract, a renewal Certificate of the required coverage must be sent to the City of Goodyear not less than five (5) days prior to expiration date.)

This certificate is not valid unless countersigned by an authorized representative of the Insurance Company.

Date:	Countersigned by:	
		-
	Signature	
	Agency Address	-
	Telephone	

, 20 .

CONTRACTOR'S AFFIDAVIT REGARDING SETTLEMENT OF CLAIMS

2004-010 Storage Tank #11 Refurbishment

To the City of Goodyear, Arizona Gentlemen: This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged. The undersigned, for the consideration of \$ (Dollars), as set out in the final pay estimate, as full and complete payment under the terms of the contract, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project. The undersigned further agrees to indemnify and save harmless the City of Goodyear against any and all liens, claims of liens, suits, actions, damages, charges and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performance and materials furnished for the performance of said installation. Signed and dated at ______, this _____ day of ______, 20_____. Contractor STATE OF ARIZONA) ss.

COUNTY OF MARICOPA)
The foregoing instrument was s	subscribed and sworn to before me this day of
	<u></u>
	Notary Public
My Commission Expires:	